

## ABSTRACT

The present invention deals with the handling of the tail-gas product from an integrated gasification reactor/Fischer-Tropsch reactor unit. The Fischer-Tropsch tail-gas is either recycled back for feed to the gasification unit to be converted into syngas, is processed in a CO<sub>2</sub> removal unit and recycled back to the feed of the Fischer-Tropsch reactor to improve the liquid product yield, or is sent to a power production unit for the generation of electric power.